

FORM PTO-1390
(REV. 5-93)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

3552/0K257US0

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)**

10/049359

INTERNATIONAL APPLICATION NO.
PCT/JP00/05327

INTERNATIONAL FILING DATE
August 9, 2000

PRIORITY DATE CLAIMED
August 9, 1999

TITLE OF INVENTION

CUSTOMER COLLATION SYSTEM, CARD, MOBILE COMMUNICATION TERMINAL, AND SHOP SYSTEM

APPLICANT(S) FOR DO/EO/US

Sunao TAKATORI

Applicant herewith submits to the United States Designated/Elected office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S. C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S. C. 371 (b) and PCT Articles 22 and 39 (1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S. C. 371 (c) (2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☒ A translation of the International Application into English (35 U.S. C. 371 (c)2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c) (3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98 (with 5 references).
12. ☒ An assignment document for recording. A **separate** cover sheet in compliance with 37 CFR 3.28 and 3.31 is included
13. ☒ A FIRST preliminary amendment.
☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney an/or address letter.
16. ☐ Other items or information: 6 Sheets of Formal Drawings

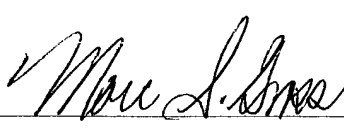
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Signature

U.S. APPLICATION NO. (if known see 37 CFR 1.60) 10/049359		INTERNATIONAL APPLICATION NO.: PCT/JP00/05327		Attorney's Docket Number 3552/OK257US0	
17. [x] The following fees are submitted: Basic National Fee (37 CFR 1.492 (a)(1)-(5)): Search Report has been prepared by the EPO [] or JPO [X] \$890.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) \$710.00 No international preliminary examination fee paid to USPTO(37 CFR 4.482) but international search fee paid to USPTO (37 CFR 1.445 (a) (2))... \$740.00 Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO..... \$1,040.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4).... \$100.00 <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT =</div>				CALCULATIONS	PTO USE ONLY
				\$890.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than []20 []30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
Claims	Number Filed	Number Extra	Rate		
Total Claims	15-20		X \$18.00	\$00	
Independent Claims	6-3	3	X \$84.00	\$252.00	
Multiple dependent claims(s) (if applicable) + 280				\$	
TOTAL OF ABOVE CALCULATIONS =				\$1142.00	
Reduction by 1/2 for filing by small entity, if applicable.				\$571.00	
SUBTOTAL =				\$571.00	
Processing fee of \$130.00 for furnishing the English translation later the [] 20 [] 39 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). the assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$40.00	
TOTAL FEES ENCLOSED =				\$611.00	
				Amount to be refunded	\$
				charged	\$
a. [X] A check in the amount of \$611.00 to cover the above fees is enclosed. b. [] Please charge my Deposit Account No.04-0100 in the amount of \$ to cover the above fees. c. [X] The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 04-0100. A duplicate copy of this sheet is enclosed. NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. SEND ALL CORRESPONDENCE TO Darby & Darby P C 805 Third Avenue New York, New York 10022-7513					
			SIGNATURE	 NAME MARC S. GROSS REGISTRATION NO 19,614	

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JC13 Rec'd PCT/PTO 08 FEB 2002

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DB Peck
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Signature

File No: 3552/OK257US0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Sunao TAKATORI

Serial No: TBA (U.S. National Phase of PCT/JP00/05327,
filed August 9, 2000)

Filed: Concurrently Herewith

For: CUSTOMER COLLATION SYSTEM, CARD, MOBILE COMMUNICATION
TERMINAL AND SHOP SYSTEM

PRELIMINARY AMENDMENT

Hon. Commissioner of
Patents and Trademarks
Washington, DC 20231

Attn.: Box PCT, RO/US

Sir:

Prior to examination, Applicants wish to amend the above-identified
application as follows.

IN THE SPECIFICATION

Please amend the specification to read as follows:

On page 2, lines 2-8 please amend as follows:

(Amended) The present invention is related to a customer collation system comprising storage means for storing the usage condition data of the recent plural predetermined times for each usage of a card of a customer and collation means for collating the usage condition data from the shop with the usage condition data, which is stored in the storage means and thereby, it is possible to prevent "the fraudulent usage of a card".

On page 2, lines 9-12, please amend as follows:

(Amended) The card is preferably a credit card and the usage condition data is preferably the purchase data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a credit card".

On page 2, lines 13-16, please amend as follows:

(Amended) The card is preferably a cash card and the usage condition data is preferably the account data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a cash card".

On page 2, lines 17-20, please amend as follows:

(Amended) Alternatively, the present invention is related to a card provided with storage means for storing the usage condition data of the recent plural predetermined times for each usage. Hereby, it is possible to prevent "the fraudulent usage of a card".

On page 2, lines 21-24, please amend as follows:

(Amended) The card is preferably a credit card and the usage condition data is preferably the purchase data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a credit card".

On page 2, lines 25-28, please amend as follows:

(Amended) The card is preferably a cash card and the usage condition data is preferably the account data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a cash card".

Text bridging page 2, line 29 and page 3, lines 1-8, please amend as follows:

(Amended) The present invention is related to a customer collation system comprising storage means for storing the account condition data of the recent plural

predetermined times for each account of a mobile communication terminal of a customer and collation means for collating the account condition data from the mobile communication terminal with the account condition data, which is stored in the storage means and thereby, it is possible to prevent "the fraudulent usage of a card".

On page 3, lines 9-12, please amend as follows:

(Amended) Preferably, the account condition data comprises the credit account data or the prepaid account data of the recent plural predetermined times. Hereby, to obtain the data illegally becomes difficult.

On page 3, lines 13-20, please amend as follows:

(Amended) Alternatively, the present invention is related to a mobile communication terminal, which is provided with storage means for storing the account condition data of the recent plural predetermined times for each account upon performing a transaction. Hereby, it is possible to prevent "the fraudulent usage of a card".

On page 4, lines 4-17, please amend as follows:

(Amended) Alternatively, the present invention is related to a shop system which is capable of being detachably connected to a mobile communication terminal of a customer and is capable of connecting detachable storage means for storing a customer specific code and the account condition data of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal, and said shop system is provided with reading means for reading out the code and the account condition data from this detachable storage means and for transmitting it to a dealer and receiving means for receiving the information with regard to whether the account exists or not from the dealer. Hereby, it is possible to prevent "the fraudulent usage of a card".

On page 4, lines 21-27, please amend as follows:

(Amended) Alternatively, the present invention is related to a mobile communication terminal detachably connecting the detachable storage means for storing a customer specific code and the account condition data of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal. Hereby, it is possible to prevent "the fraudulent usage of a card".

IN THE CLAIMS

Please amend claims 1-8, 10, 12 and 14 as follows:

1. (Amended) A customer collation system comprising: storage means for storing the usage condition data of the recent plural predetermined times for each usage of a card of a customer; and collation means for collating the usage condition data from a shop with the usage condition data, which is stored in the storage means.

2. (Amended) The customer collation system according to claim 1, wherein the card is a credit card and the usage condition data is the purchase data of the recent plural predetermined times.

3. (Amended) The customer collation system according to claim 1, wherein the card is a cash card and the usage condition data is the purchase data of the recent plural predetermined times.

4. (Amended) A card comprising storage means for storing the usage condition data of the recent plural predetermined times for each usage.

5. (Amended) The card according to claim 4, wherein the card is a credit card and the usage condition data is the purchase data of the recent plural predetermined times.

6. (Amended) The card according to claim 4, wherein the card is a cash card and the usage condition data is the account data of the recent plural predetermined times.

7. (Amended) A customer collation system comprising: storage means for storing the account condition data of the recent plural predetermined times for each account of a mobile communication terminal of a customer; and collation means for collating the account condition data from the mobile communication terminal with the account condition data, which is stored in the storage means.

8. (Amended) The customer collation system according to claim 7, wherein the account condition data comprises the credit account data or the prepaid account data of the recent plural predetermined times.

10. (Amended) A mobile communication terminal comprising: storage means for storing the account condition data of the recent plural predetermined times for each account upon performing a transaction.

12. (Amended) A shop system which is capable of being detachably connected to a mobile communication terminal of a customer and is capable of connecting detachable storage means for storing a customer specific code and the account condition data of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal, and said shop system comprising: reading means for reading out the code and the account condition data from the detachable storage means and for transmitting it to a dealer; and receiving means for receiving the information with regard to whether the dealer permits the account or not.

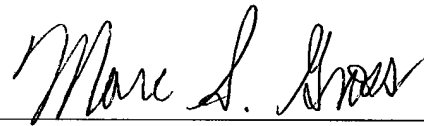
14. (Amended) A mobile communication terminal detachably connecting the detachable storage means for storing a customer specific code and the account condition data of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal.

REMARKS

The above amendments to the specification and claims have been made to correct formal matters, and do not add any new matter.

Entry of this amendment and a prompt official action on the merits of the claims is respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, reading "Marc S. Gross", written in black ink.

Marc S. Gross
Attorney for Applicant(s)
Reg. No. 19,614

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10049359 107049359
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D B Peck
Name (Print)

Signature

File No: 3552/OK257US0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Sunao TAKATORI

Serial No: TBA (U.S. National Phase of PCT/JP00/05327,
filed August 9, 2000)

Filed: Concurrently Herewith

For: CUSTOMER COLLATION SYSTEM, CARD, MOBILE COMMUNICATION
TERMINAL AND SHOP SYSTEM

MARK UP TO PRELIMINARY AMENDMENT

Hon. Commissioner of
Patents and Trademarks
Washington, DC 20231

Attn.: Box PCT, RO/US

Sir:

Prior to examination, Applicants wish to amend the above-identified
application as follows.

IN THE SPECIFICATION

Please amend the specification to read as follows:

On page 2, lines 2-8, please amend as follows:

(Amended) The present invention is related to a customer collation system comprising storage means for storing the usage condition data [resulting from the usage condition] of the recent plural predetermined times for each usage of a card of a customer and collation means for collating the usage condition data from the shop with the usage condition data, which is stored in the storage means and thereby, it is possible to prevent "the fraudulent usage of a card".

On page 2, lines 9-12, please amend as follows:

(Amended) The card is preferably a credit card and the usage condition data is preferably the purchase data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a credit card".

On page 2, lines 13-16, please amend as follows:

(Amended) The card is preferably a cash card and the usage condition data is preferably the account data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a cash card".

On page 2, lines 17-20, please amend as follows:

(Amended) Alternatively, the present invention is related to a card provided with storage means for storing the usage condition data [resulting from the usage condition] of the recent plural predetermined times for each usage. Hereby, it is possible to prevent "the fraudulent usage of a card".

On page 2, lines 21-24, please amend as follows:

(Amended) The card is preferably a credit card and the usage condition data is preferably the purchase data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a credit card".

On page 2, lines 25-28, please amend as follows:

(Amended) The card is preferably a cash card and the usage condition data is preferably the account data of the recent plural predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a cash card".

Text bridging page 2, line 29 and page 3, lines 1-8, please amend as follows:

(Amended) The present invention is related to a customer collation system comprising storage means for storing the account condition data [resulting from the

account condition] of the recent plural predetermined times for each account of a mobile communication terminal of a customer and collation means for collating the account condition data from the mobile communication terminal with the account condition data, which is stored in the storage means and thereby, it is possible to prevent "the fraudulent usage of a card".

On page 3, lines 9-12, please amend as follows:

(Amended) Preferably, the account condition data comprises the credit account data or the prepaid account data of the recent plural predetermined times. Hereby, to obtain the data illegally becomes difficult.

On page 3, lines 13-20, please amend as follows:

(Amended) Alternatively, the present invention is related to a mobile communication terminal, which is provided with storage means for storing the account condition data of [resulting from the account condition] the recent plural predetermined times for each account upon performing a transaction. Hereby, it is possible to prevent "the fraudulent usage of a card".

On page 4, lines 4-17, please amend as follows:

(Amended) Alternatively, the present invention is related to a shop system which is capable of being detachably connected to a mobile communication terminal of a customer and is capable of connecting detachable storage means for storing a customer specific code and the account condition data [resulting from the account condition] of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal, and said shop system is provided with reading means for reading out the code and the account condition data from this detachable storage means and for transmitting it to a dealer and receiving means for receiving the information with regard to whether the account exists or not from the dealer. Hereby, it is possible to prevent "the fraudulent usage of a card".

On page 4, paragraph 3, please amend as follows:

(Amended) Alternatively, the present invention is related to a mobile communication terminal detachably connecting the detachable storage means for storing a customer specific code and the account condition data of [resulting from the account condition] the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal. Hereby, it is possible to prevent "the fraudulent usage of a card".

IN THE CLAIMS

Please amend claims 1-8, 10, 12 and 14 as follows:

1. (Amended) A customer collation system comprising: storage means for storing the usage condition data [resulting from the usage condition] of the recent plural predetermined times for each usage of a card of a customer; and collation means for collating the usage condition data from a shop with the usage condition data, which is stored in the storage means.

2. (Amended) The customer collation system according to claim 1, wherein the card is a credit card and the usage condition data is the purchase data of the recent plural predetermined times.

3. (Amended) The customer collation system according to claim 1, wherein the card is a cash card and the usage condition data is the purchase data of the recent plural predetermined times.

4. (Amended) A card comprising storage means for storing the usage condition data [resulting from the usage condition] of the recent plural predetermined times for each usage.

5. (Amended) The card according to claim 4, wherein the card is a credit card and the usage condition data is the purchase data of the recent plural predetermined times.

6. (Amended) The card according to claim 4, wherein the card is a cash card and the

usage condition data is the account data of the recent plural predetermined times.

7. (Amended) A customer collation system comprising: storage means for storing the account condition data [resulting from the account condition] of the recent plural predetermined times for each account of a mobile communication terminal of a customer; and collation means for collating the account condition data from the mobile communication terminal with the account condition data, which is stored in the storage means.

8. (Amended) The customer collation system according to claim 7, wherein the account condition data comprises the credit account data or the prepaid account data of the recent plural predetermined times.

10. (Amended) A mobile communication terminal comprising: storage means for storing the account condition data [resulting from the account condition] of the recent plural predetermined times for each account upon performing a transaction.

12. (Amended) A shop system which is capable of being detachably connected to a mobile communication terminal of a customer and is capable of connecting detachable storage means for storing a customer specific code and the account condition data [resulting from the account condition] of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal, and said

shop system comprising: reading means for reading out the code and the account condition data from the detachable storage means and for transmitting it to a dealer; and receiving means for receiving the information with regard to whether the dealer permits the account or not.

14. (Amended) A mobile communication terminal detachably connecting the detachable storage means for storing a customer specific code and the account condition data [resulting from the account condition] of the recent plural predetermined times for each account upon performing a transaction by the mobile communication terminal.

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SPECIFICATION

Name (Print) DB Peck

Signature [Signature]

CUSTOMER COLLATION SYSTEM, CARD,

MOBILE COMMUNICATION TERMINAL, AND SHOP SYSTEM

Technical Field

The present invention relates to a customer collation system, a card, a mobile communication terminal and a shop system for a credit account and a prepaid account by the use of a credit card, a cash card and a mobile communication terminal or the like.

Background Art

Damage by "the fraudulent usage of a credit card" is serious. Particularly, it occurs in many cases that statements about the usage of the credit card of Japanese overseas travelers are illegally copied. Further, as soon as the international usage of a cashing service becomes available in accordance with deregulation of finance in recent years, some cases of "the fraudulent usage of a credit card" of a cash service, so called debit card, have taken place.

The present invention has been made by taking such problems into consideration, and an object of which is to provide a customer collation system, a card, a mobile communication terminal and a shop system in order to prevent a card such as a credit card and a cash card or the like from being "fraudulently used" to promote safety of a credit account and a prepaid account.

Disclosure of the Invention

The present invention is related to a customer collation system comprising storage means for storing the usage condition data resulting from the usage condition of a card of a customer and collation means for collating the usage condition data from the shop with the usage condition data, which is stored in the storage means and thereby, it is possible to prevent "the fraudulent usage of a card".

The card is preferably a credit card and the usage condition data is preferably the purchase data of the recent predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a credit card".

The card is preferably a cash card and the usage condition data is preferably the account data of the recent predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a cash card".

Alternatively, the present invention is related to a card provided with storage means for storing the usage condition data resulting from the usage condition. Hereby, it is possible to prevent "the fraudulent usage of a card".

The card is preferably a credit card and the usage condition data is preferably the purchase data of the recent predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a credit card".

The card is preferably a cash card and the usage condition data is preferably the account data of the recent predetermined times. Hereby, it is possible to prevent "the fraudulent usage of a cash card".

The present invention is related to a customer

collation system comprising storage means for storing the account condition data resulting from the account condition of a mobile communication terminal of a customer and collation means for collating the account condition data from the mobile communication terminal with the account condition data, which is stored in the storage means and thereby, it is possible to prevent "the fraudulent usage of a card".

Preferably, the account condition data comprises the credit account data or the prepaid account data of the recent predetermined times. Hereby, to obtain the data illegally becomes difficult.

Preferably, the customer collation system is provided with transmission means for transmitting the pseudo data of the account to the mobile communication terminal when the account has not been performed during a given period. The storage means stores the pseudo data of the account as the account condition data. Hereby, even when the small amount of the account is opened, it is possible to prevent "the fraudulent usage of a card".

Alternatively, the present invention is related to a mobile communication terminal, which is provided with storage means for storing the account condition data resulting from the account condition upon performing a transaction. Hereby, it is possible to prevent "the fraudulent usage of a card".

Preferably, the storage means stores an account stop personal identification code for stopping an account. Further, controlling means is provided to input the account stop personal identification code through the communication

and thereby, stop an account by the mobile communication terminal. Hereby, the account by the mobile communication terminal is stopped.

Alternatively, the present invention is related to a shop system which is capable of being detachably connected to a mobile communication terminal of a customer and is capable of connecting detachable storage means for storing a customer specific code and the account condition data resulting from the account condition upon performing a transaction by the mobile communication terminal, and said shop system is provided with reading means for reading out the code and the account condition data from this detachable storage means and for transmitting it to a dealer and receiving means for receiving the information with regard to whether the account exists or not from the dealer. Hereby, it is possible to prevent "the fraudulent usage of a card".

Preferably, the detachable storage means is a SIM card. Hereby, it is possible to apply a standard SIM card to customer collating means.

Alternatively, the present invention is related to a mobile communication terminal detachably connecting the detachable storage means for storing a customer specific code and the account condition data resulting from the account condition upon performing a transaction by the mobile communication terminal. Hereby, it is possible to prevent "the fraudulent usage of a card".

Preferably, the detachable storage means stores the account stop personal identification code for stopping an account and the detachable storage means is provided with

controlling means for stopping the account due to the mobile communication terminal by inputting the account stop personal identification code through the communication. Hereby, the account by the mobile communication terminal is stopped.

Brief Description of the Drawings

FIG. 1 is a block diagram for illustrating a first embodiment of a customer collation system according to the present invention.

FIG. 2 is a block diagram for illustrating a second embodiment of a customer collation system according to the present invention.

FIG. 3 is a flow chart for illustrating the processing for writing the dummy data according to the second embodiment.

FIG. 4 is a flow chart for illustrating the processing for inquiry according to the second embodiment.

FIG. 5 is a flow chart for illustrating the processing for stopping an account by compulsion according to the second embodiment.

FIG. 6 is a block diagram for illustrating a third embodiment of a customer collation system according to the present invention.

Best Mode for Carrying out the Invention

In the next place, a first embodiment of a customer collation system according to the present invention will be explained with reference to the drawing.

In the customer collation system shown FIG. 1, a

plurality of card readers T1 to Tn for reading the data of a card CD are arranged in a shop and are connected to a customer collation center CS. The customer collation center CS is mutually connected to card issuers C1 to CN and the data read by the card readers T1 to Tn is collated with the information of an issuer of the card CD (for example, C1).

The card readers T1 to Tn and the customer collation center CS as well as the customer collation center CS and the card issuers C1 to CN are connected through a public telephone network of a fixed telephone or a mobile telephone or through a dedicated line.

The card CD is a card having storage means such as a memory card or the like. In the card CD, collation codes shown in a table 1 and a table 2 are held in addition to a customer number, a personal identification code, an effective period, a limited amount of the usage and other fixed data on the basis of a contract between the card issuer and a customer. The table 1 generates a collation code by a function $f()$ from a value for the minute in the data of the usage year, month, date, hour, minute of a card of the recent ten times. The table 2 generates a collation code by a function $g()$ from a shop number in which a card has been used in the recent ten times.

Table 1 : Collation code

Year	month	date	hour	minute	collation code
Y_k	M_k	D_k	H_k	m_k	$f(m_{k-10}, \dots, m_{k-1})$
Y_{k+1}	M_{k+1}	D_{k+1}	H_{k+1}	m_{k+1}	$f(m_{k-9}, \dots, m_k)$
Y_{k+2}	M_{k+2}	D_{k+2}	H_{k+2}	m_{k+2}	$f(m_{k-8}, \dots, m_{k+1})$
.....
Y_n	M_n	D_n	H_n	m_n	$f(m_{n-10}, \dots, m_{n-1})$

Table 2 : Collation code

shop number	amount of the usage	collation code
RSN_k	MM_k	$g(RSN_{k-10}, \dots, RSN_{k-1})$
RSN_{k+1}	MM_{k+1}	$g(RSN_{k-9}, \dots, RSN_k)$
RSN_{k+2}	MM_{k+2}	$g(RSN_{k-8}, \dots, RSN_{k+1})$
.....
RSN_n	MM_n	$g(RSN_{n-10}, \dots, RSN_{n-1})$

As the function $f()$ and the function $g()$, a function or the like for generating a numerical value row is used in which all digits of an inputted numerical value (a minute or a shop number) or a portion thereof is sequentially arranged. Alternatively, as an inputted numerical value, the data other than a minute in the table 1, i.e., a date and an hour may be used. Other data in table 2 which varies frequently, i.e., the amount of the usage or the like may be used.

For example, even if the statements about the usage of the credit card is illegally copied, it is not possible to know the record of the usage and the year, month, date, hour and minute of the usage or the like before that, much less to know the usage condition after that. Accordingly, unless the card CD itself is illegally used, "the fraudulent usage of a card" is not possible. In other

words, if variable data to be determined by the usage condition of the card is used as a collation code, the damage due to "the fraudulent usage of a card" is extremely reduced. In the above described embodiment, the collation code is collated in the customer collation center CS. However, it is a matter of course that the reading result of the card reader may be directly transmitted to the card issuer so that the reading result may be collated by the card issuer.

In the next place, a second embodiment of a customer collation system according to the present invention will be explained with reference to the drawings.

In FIG. 2, the customer collation system has a plurality of the mobile communication terminals T1 to Tn such as a mobile telephone, a PHS, a pager and others. These mobile communication terminals are capable of communicating with the dealers C1 to CN through the mobile communication service company CS.

The mobile communication terminals T1 to Tn have the storage means such as a memory or the like and hold the collation codes shown in the table 1 and the table 2 in addition to a customer number, a personal identification code, an effective period, a limited amount of the usage and other fixed data on the basis of a contract between the card issuer and a customer.

For example, even if the statements about the usage of the credit card is illegally copied, it is not possible to know the record of the usage and the year, month, date, hour and minute of the usage or the like before that, much less to know the usage condition after that. Accordingly,

unless the mobile communication terminal itself is illegally used, "the fraudulent usage of a card" is not possible. In other words, if variable data to be determined by the usage condition of the mobile communication terminal is used as a collation code, the damage due to "the fraudulent usage of a card" is extremely reduced.

However, the data in association with such an account condition is not generated unless the account is really carried out. Such data cannot be effective for a customer who carries out the account in low frequency. Therefore, as shown in a flow chart of FIG. 3, the dummy data of the account is generated.

In FIG. 3, if the dealer regularly checks the account condition of respective customers and finds a customer having no record of the account during a predetermined period (step S101), the dummy data is transmitted to the mobile communication terminal (step S102). Simultaneously, this data is recorded by the dealer (step S103). Therefore, it is possible to secure the safety of the account with respect to even a customer carrying out the accounts in low frequency.

FIG. 4 illustrates the processing in the case that any malfunction may occur in the mobile communication terminal such as a theft of the mobile communication terminal.

In FIG. 4, if any malfunction is anticipated, the dealer judges that the inquiry is necessary (step S201) and a person in charge makes inquiries orally (step S202). This inquiry is related to the data for specifying a customer and its content is "birthday", "permanent

address", "address", "telephone number", "customer number", "personal identification code" and others of the customer.

The dealer evaluates an answer with respect to this inquiry (step S203). Then, if the evaluation result is not good (step S204), the dealer stops the account (step S205).

Thus, to make a direct inquiry appropriately minimizes the risk of illegal usage of the mobile communication terminal.

FIG. 5 illustrates the processing for stopping an account function by compulsion by a customer or a dealer.

In FIG. 5, an account stop personal identification code is stored in a memory of the mobile communication terminal. The customer or the dealer transmits the writing demand including this account stop personal identification code to the mobile communication terminal. If the mobile communication terminal receives the writing demand (step S301), it judges whether the received personal identification code is identical with the stored personal identification code or not (step S302). In this case, if the received personal identification code is identical with the stored personal identification code, an account stop flag is written in the memory (step S303) and all accounts by the use of the present mobile communication terminal are stopped. Hereby, the accounts with respect to other dealers are also stopped, so that it becomes possible to secure the safety of the present customer's accounts to the fullest extent.

In the next place, a customer collation system of a third embodiment according to the present invention will be explained with reference to the drawing.

In FIG. 6, the customer collation system has a plurality of the mobile communication terminals T1 to Tn such as a mobile telephone, a PHS, a pager and others. These mobile communication terminals are capable of communicating with the dealers CC1 to CCN through the mobile communication service company CS1.

The mobile communication terminals T1 to Tn have built-in storage means such as a memory or the like (not illustrated) as well as detachable storage means such as the SIM cards C1 to Cn or the like. The memory and the SIM card hold the prepaid amount, the account information such as the balance and the collation codes shown in the table 1 and the table 2 in addition to a customer number, a personal identification code, an effective period, a limited amount of the usage in credit insurance companies and prepaid dealers (which are referred to "dealers") and others fixed data on the basis of a contract between the card issuer and a customer.

Storage contents of respective SIM cards C1 to Cn are capable of being read by the SIM card readers CR1 to CRm or the like. The reading result is transmitted to the dealers CC1 to CCN corresponding to this account through the communication service company CS2.

In the third embodiment, as same as the second embodiment, it is possible to perform the processing for writing the dummy data, the processing for the inquiry and the processing for stopping the account by compulsion.

Industrial Applicability

As described above, according to the present

invention, it is possible to prevent "the fraudulent usage of a card".

CLAIMS

1. A customer collation system comprising: storage means for storing the usage condition data resulting from the usage condition of a card of a customer; and collation means for collating the usage condition data from a shop with the usage condition data, which is stored in the storage means.
2. The customer collation system according to claim 1, wherein the card is a credit card and the usage condition data is the purchase data of the recent predetermined times.
3. The customer collation system according to claim 1, wherein the card is a cash card and the usage condition data is the purchase data of the recent predetermined times.
4. A card comprising storage means for storing the usage condition data resulting from the usage condition.
5. The card according to claim 4, wherein the card is a credit card and the usage condition data is the purchase data of the recent predetermined times.
6. The card according to claim 4, wherein the card is a cash card and the usage condition data is the account data of the recent predetermined times.
7. A customer collation system comprising: storage means for storing the account condition data resulting from the account condition of a mobile communication terminal of a customer; and collation means for collating the account condition data from the mobile communication terminal with the account condition data, which is stored in the storage

means.

8. The customer collation system according to claim 7, wherein the account condition data comprises the credit account data or the prepaid account data of the recent predetermined times.

9. The customer collation system according to claim 7, wherein the customer collation system is provided with transmission means for transmitting the pseudo data of the account to the mobile communication terminal when the account has not been performed during a given period and the storage means stores the pseudo data of the account as the account condition data.

10. A mobile communication terminal comprising: storage means for storing the account condition data resulting from the account condition upon performing a transaction.

11. The mobile communication terminal according to claim 10, wherein the storage means stores an account stop personal identification code for stopping an account and is provided with controlling means for inputting the account stop personal identification code through the communication and whereby, stop an account by the mobile communication terminal.

12. A shop system which is capable of being detachably connected to a mobile communication terminal of a customer and is capable of connecting detachable storage means for storing a customer specific code and the account condition data resulting from the account condition upon performing a transaction by the mobile communication terminal, and said shop system comprising: reading means for reading out the code and the account condition data from the detachable

storage means and for transmitting it to a dealer; and receiving means for receiving the information with regard to whether the dealer permits the account or not.

13. The shop system according to claim 12, wherein the detachable storage means is a SIM card.

14. A mobile communication terminal detachably connecting the detachable storage means for storing a customer specific code and the account condition data resulting from the account condition upon performing a transaction by the mobile communication terminal.

15. The mobile communication terminal according to claim 14, wherein the detachable storage means stores the account stop personal identification code for stopping an account and the detachable storage means is provided with controlling means for stopping the account due to the mobile communication terminal by inputting the account stop personal identification code through the communication.

ABSTRACT

An object of the present invention is to provide a customer collation system, a card, a mobile communication terminal and a shop system in order to prevent a card such as a credit card and a cash card or the like from being "fraudulently used" to promote safety of a credit account and a prepaid account.

A plurality of card readers (T1 to Tn) for reading the data of a card (CD) are arranged in a shop and these card readers (T1 to Tn) are connected to a customer collation center (CS). The customer collation center (CS) is mutually connected to card issuers (C1 to CN) and the data read by the card readers (T1 to Tn) is collated with the data of the usage year, month, data, hour, minute of the card (CD) of the recent ten times of an issuer of the card (CD) (for example, C1). Hereby, it is possible to prevent "the fraudulent usage of a card".

FIG.1

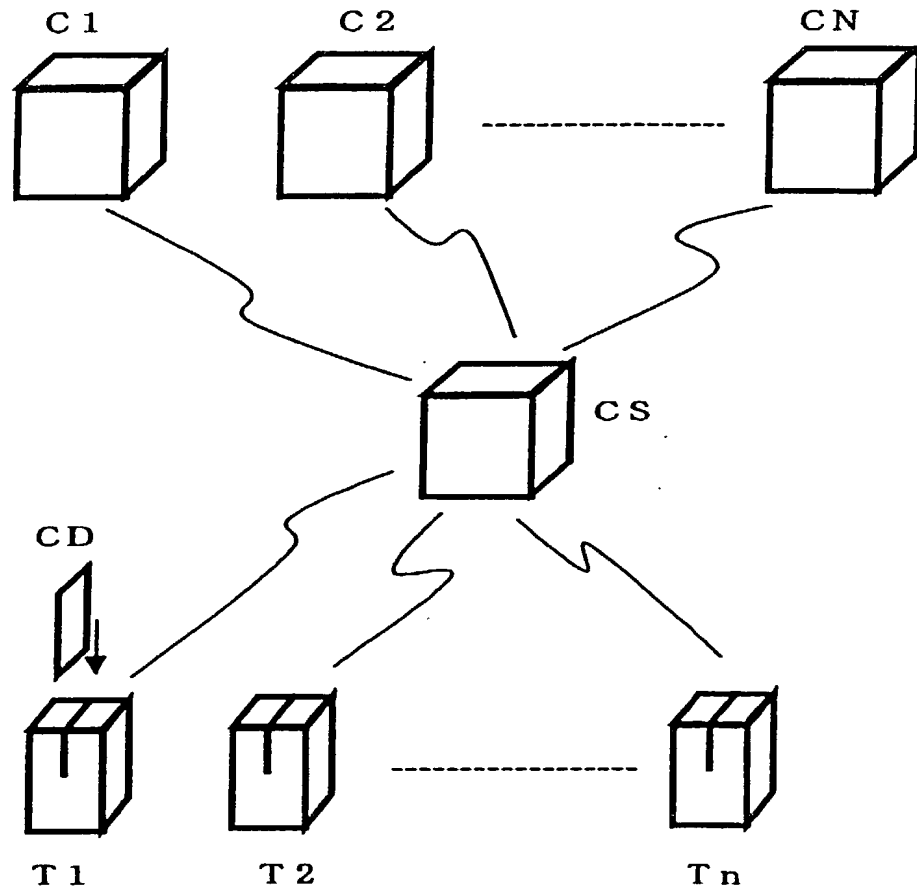


FIG.2

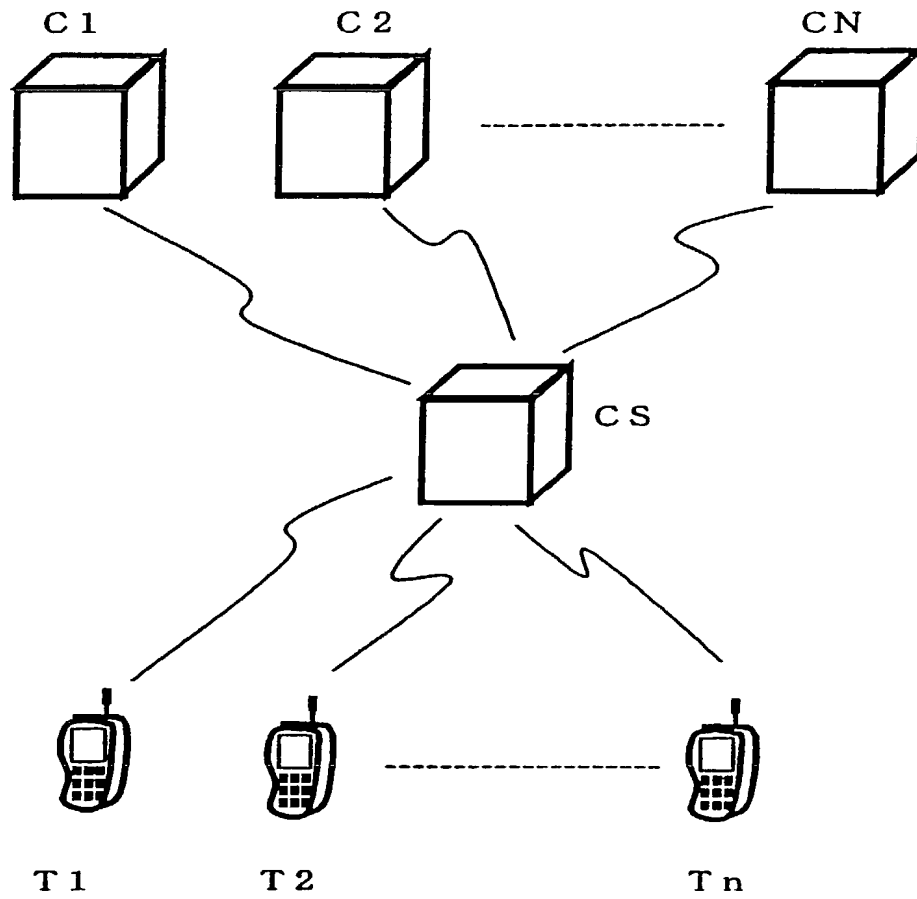


FIG.3

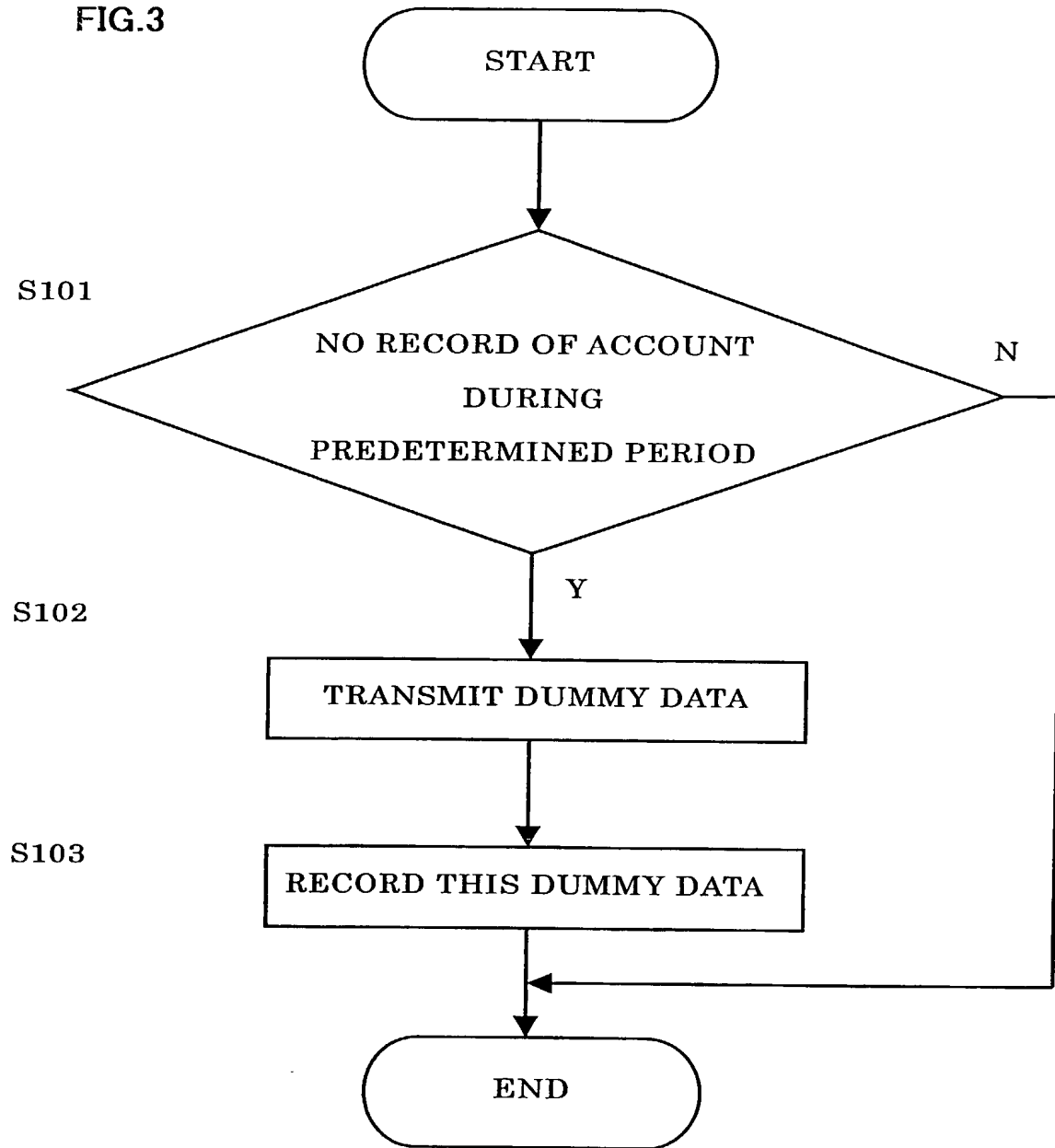


FIG.4

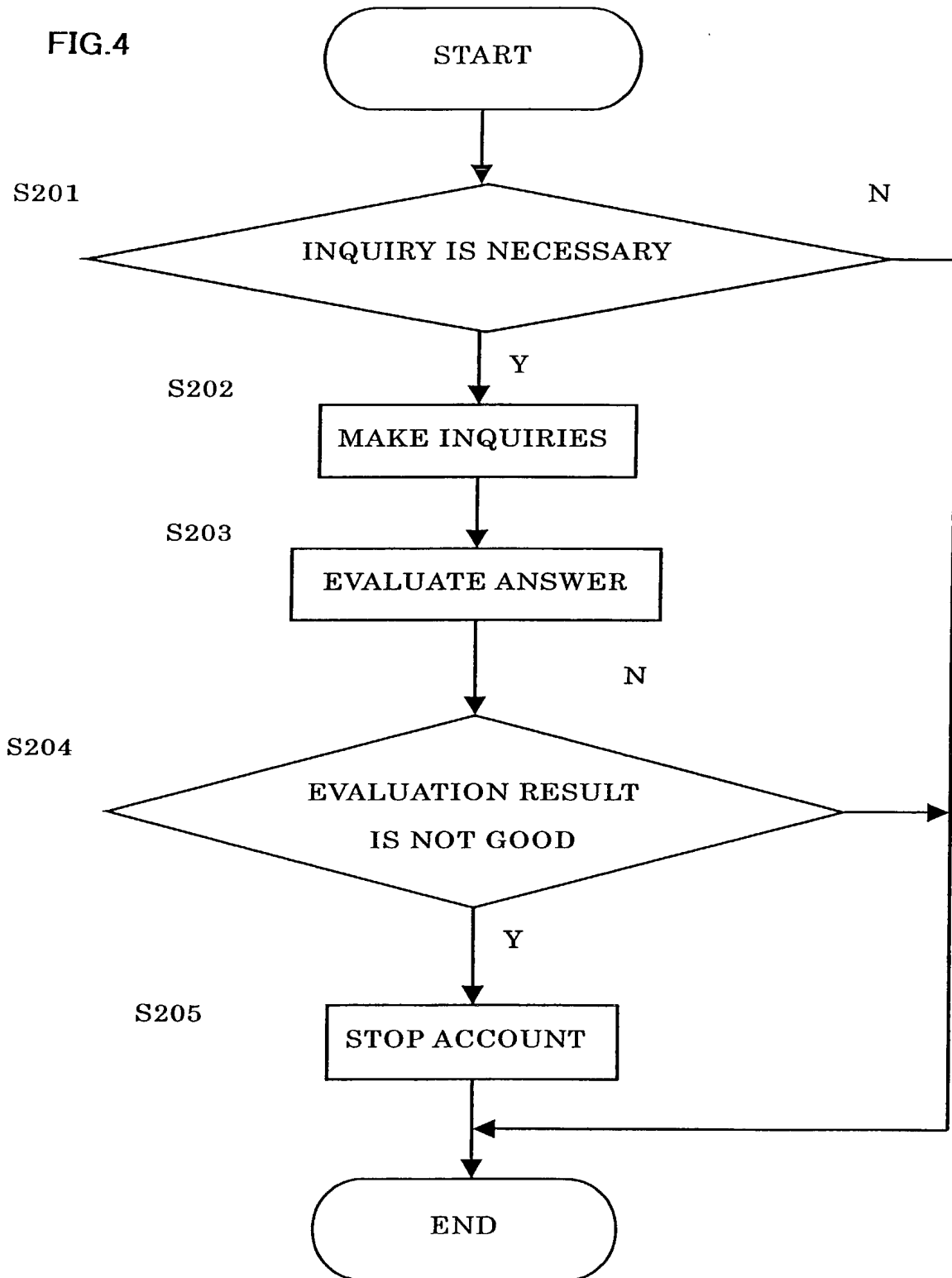


FIG.5

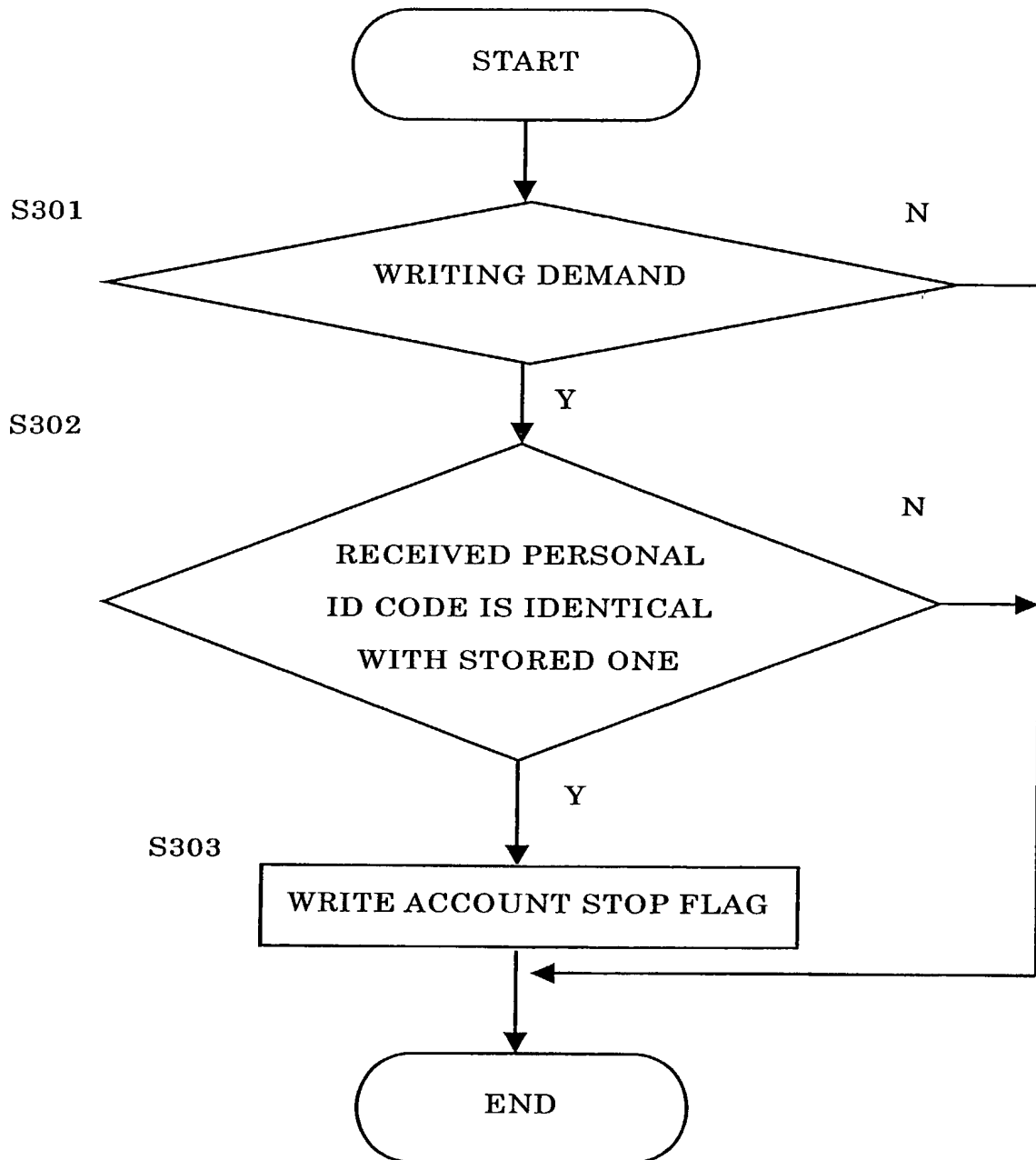
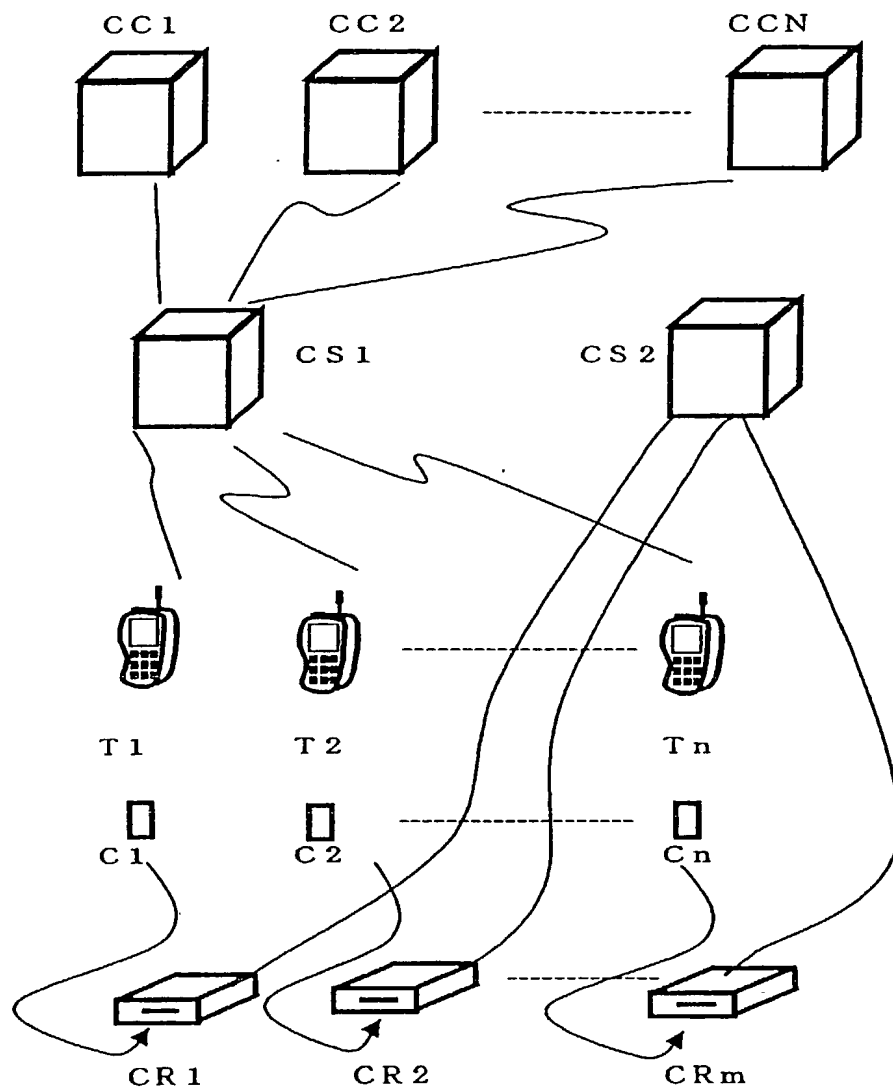


FIG.6



Attorney's Docket No.: _____

DECLARATION, POWER OF ATTORNEY AND PETITION

I (We), the undersigned inventor(s), hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I (We) believe that I am (we are) the original, first, and joint (sole) inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Customer collation system, card, mobile communication terminal,
and shop system

the specification of which

☐ is attached hereto.

☐ was filed on _____ as

Application Serial No. _____

and amended on _____.

☒ was filed as PCT international application

Number PCT/JP00/05327

on August 9, 2000,

and was amended under PCT Article 19

on _____ (if applicable).

I (We) hereby state that I (We) have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above; that I (We) do not know and do not believe that this invention was ever known or used before my invention or discovery thereof, or patented or described in any printed publication in any country before my invention or discovery thereof, or more than one year prior to this application, or in public use or on sale in the United States for more than one year prior to this application; that this invention or discovery has not been patented or made the subject of an inventor's certificate in any country foreign to the United States on an application filed by me or my legal representatives or assigns more than twelve months before this application.

I (We) acknowledge the duty to disclose information known to be material to the patentability of this application as defined in Section 1.56 of Title 37 Code of Federal Regulations.

I (We) hereby claim foreign priority benefits under Section 119(a)-(d) of Title 35 United States Code, of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Application No.	Country	Filing date	Priority claimed
<u>224878/1999</u>	<u>Japan</u>	<u>August 9, 1999</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<u>255015/1999</u>	<u>Japan</u>	<u>September 9, 1999</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<u>286235/1999</u>	<u>Japan</u>	<u>October 7, 1999</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby claim the benefit under Section 119(e) of Title 35 United States Code, of any United States application(s) listed below.

(Application Number)

(Filing Date)

(Application Number)

(Filing Date)

I (We) hereby claim the benefit under Section 120 of Title 35 United States Code, of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Section 112 of Title 35 United States Code, I (We) acknowledge the duty to disclose material information as defined in Section 1.56(a) of Title 37 Code of Federal Regulations, which occurred between the filing date of the prior application and national or PCT international filing date of this application:

Application Serial No.	Filing Date	Status (pending, patented, abandoned)

18- And I (We) hereby appoint: Gordon D.Coplein, Registration No. 19,165; William F. Dudine, Jr., Registration No. 20,569; Michael J. Sweedler, Registration No. 19,937; S. Peter Ludwig, Registration No. 25,351; Paul Fields, Registration No. 20,298; Marc S. Gross, Registration No. 19,614; Joseph B. Lerch, Registration No. 26,936; Melvin C. Garner, Registration No. 26,272; Ethan Horwitz, Registration No. 27,646; Beverly B Goodwin, Registration No. 28,417; Adda C. Gogoris, Registration No. 29,714; Martin E. Goldstein, Registration No. 20,869; Bert J. Lewen, Registration No. 19,407; Henry Sternberg, Registration No. 22,408; Peter C. Schechter, Registration No. 31,662; Robert Schaffer, Registration No. 31,194; Robert C. Sullivan, Jr., Registration No. 30,499; Ira J. Levy, Registration No. 35,587; Joseph R. Robinson, Registration No. 33,448 and Scott G. Lindvall, Registration No. 40,325.

I (We) hereby request that all correspondence regarding this application be sent to the firm of DARBY & DARBY P.C. whose Post office address is: 805 Third Avenue, New York, N.Y. 10022 U.S.A.

I (We) declare further that all statements made herein of my (our) knowledge are true and that all statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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